## ABSTRACT OF THE DISCLOSURE

Power supply apparatuses and methods of supplying electrical energy are provided. According to one aspect, a power supply apparatus includes an electrochemical device configured to store electrical energy, a first interface coupled with the electrochemical device and adapted to couple with a supply configured to provide electrical energy and a first load configured to receive electrical energy, and charge circuitry coupled intermediate the first interface and the electrochemical device, wherein the charge circuitry is configured to monitor a quantity of electrical energy supplied from the supply to the first load and to control a supply of electrical energy to the electrochemical device responsive to the monitoring and to charge the electrochemical device.